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US Army releases training devices to target IED threats

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Key Points

- US Army unveils new generation of anti-IED training systems
- Devices displayed at AUSA 2007

A new generation of training systems has been developed by the US Army to prepare soldiers better for the evolving threats of improvised explosive devices (IEDs).

Several of these training systems developed by the US Army's Program Executive Office for Simulation, Training & Instrumentation (PEO STRI) were displayed at the October 2007 Association of the US Army (AUSA) annual meeting.

The highlighted systems included the Training Improvised Explosive Device Increment 2 (TIED 2), the Fire Marker Unit (FMU) and the Counter Radio - (controlled improvised explosive device) Electronic Warfare, Increment 2 (CREW 2) jammer trainer.

"TIED 2 is a non-pyrotechnic kit with several components," explained Staff Sergeant Dennis Godfrey, from PEO STRI's office of Project Manager, Training Devices (PM TRADE). "There are no explosives. They all use CO₂ [Carbon Dioxide], talcum powder and burst tubes for the effects. So when the CO₂ is released, it pops the burst tube, which gives you noise and the talcum powder flies out, which gives you a smoke signature. It is very safe. A soldier can be right on top of them without any risk of being hurt."

The Joint IED Defeat Organization (JIEDDO), US Marine Corps, US Army Training and Doctrine Command, US Army Forces Command and in-theatre combatant commands all participated in the development of the TIED 2 kit.

The largest TIED 2 component, called simply the Large IED Simulator (LIS), is approximately the same size as a 155 mm round.

"Besides the LIS, we also have a booby trap that you can set up with a cotter pin," Staff Sgt Godfrey said. "You run a cable and you can use it to set a trap on a car door or between trees."

"We also have a pressure-sensitive landmine trainer that also uses the burst tube, talcum powder and a CO₂ cartridge," he added. "So when they press down on it, it pops that CO₂ and up goes the smoke."

A recent addition to TIED 2 is a 'suicide vest'. "The vest is used to practice with standoff training, where soldiers ensure that a person does not get too close to them. On the battlefield, during training, you have OPFOR [opposing forces]. That is who would wear that [vest] to pretend they were a suicide bomber. Again, it is non-pyrotechnic - it uses talcum powder and CO₂," Staff Sgt Godfrey said.

Another recent addition, the Fire Marker Unit (FMU), is a pyrotechnic device from RUAG/AAI.

"The FMU has not been fielded yet but we have just put it under contract and it will be going out around December or January. It uses an M30 [and M31A1] training round, which gives you a very loud noise. That round was originally used on tanks for practice during range activities," he said.

"The TIED 2 non-pyrotechnic devices are not quite as loud," he continued. "For example, mounted soldiers in a High Mobility Multipurpose Wheeled Vehicle [HMMWV] may not be able to hear it. For training mounted soldiers, we include a pyrotechnic device so they can hear it better inside the vehicle."

Pointing to the CREW 2 trainer as another recent activity, he said: "This is a trainer that replicates the current CREW

devices being used in Iraq and Afghanistan. It is a jammer that is used to counter radio-controlled IEDs. It jams them so that they do not go off as you are driving down the road. The trainer does not actually jam but it works with our TIED-2 system to disarm the system so that it does not go off. All the switches and everything else works just the way the real ones do, with all the lights and everything. You would not be able to know that it is not the real one, except that it has a 'Training Use Only' sticker on it.

"It has been out about a year now," Staff Sgt Godfrey said. "An earlier trainer was originally fielded with some CREW 1 devices. The Rapid Equipping Force made some replicas of four jammers - ICE [IED Counter Electronic device], SSVJ [Self-Screening Vehicle Jammer], a [Warlock] Red and a [Warlock] Green - but they just made an empty shell box. At PM TRADE we took those and put 'guts' in them to make them work. We made it work with our training IEDs so that it would disarm them. More recently they came to us for the CREW 2, which is the newest box they are using.

"There is also a PDA [personal digital assistant] component, because it takes a configuration file that you upload. We have a PDA with the replicated software, so they have to go through all the proper steps to load the device," he added.

Staff Sgt Godfrey noted that the new device also works with other IED training systems that a unit might have purchased.

"We have a device called the 'interrupt device' that you can put in mid-circuit on your training IED. Once it is installed, it works with our CREW training box and makes it so that the training IED will not go off. That way you can use multiple different training devices and still get the confidence effect for soldiers, knowing that their CREW box is working."



New IED training systems on display at AUSA 2007. Shown are: (1) Large IED Simulator (LIS); (2) booby trap element; (3) landmine trainer; (4) suicide vest; (5) Fire Marker Unit (FMU), and (6) Counter Radio (Controlled Improvised Explosive Device) Electronic Warfare, Increment 2 (CREW 2) trainer. (Scott R Gourley) 1192932

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- US agrees FMS to supply IED jammers for Iraq, idr.janes.com, 09.08.07